Saskatchewan
Highways and
Transportation

2000 Ferry Traffic and Seasonal Road

Annual Report

Operational Planning and
Business Support Branch

103-00549/

EXECUTIVE SUMMARY

This report summarizes traffic data collected at the 12 cable-stayed ferries and the one free swimming ferry barge operating in Saskatchewan during 2000. The report includes analysis of changes to the traffic using the ferry system in 2000 and a historical perspective for the last ten years.

The 2000 report contains two new features. Passenger data at most of the 13 ferries and information about 4 seasonal roads operated in conjunction with the highway system.

The main findings of the 2000 report are:

- Ferry traffic volumes were relatively unchanged from 1999
- Ferry usage in the area just north of Saskatoon remained well above historical levels
- Riverhurst ferry traffic has returned to the peak volumes seen in 1997 likely due to increased recreational traffic
- Seasonal roads have quite variable operational seasons likely due to weather conditions
- Analysis of operational data from the seasonal roads is impossible because they share few common elements

Recommendation:

The Wollaston ferry operators be required to use the same vehicle type classification system used by the other ferries when the operating agreement is negotiated.

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1.0 Introduction

This annual report summarizes and presents analysis of the traffic that used the provincial ferry system in 2000. Traffic data is presented for all of the 13 ferry sites that operated in the province in 2000. This is the first time passenger data from most of the ferry sites and operational information about the seasonal roads operated by the department has been included in the annual report.

This report examines the history of traffic volumes and vehicle types using each ferry. Examination of the distribution and composition of ferry traffic gives useful insights into the function of each ferry.

Your attention is drawn to the following points about the report:

- Differences in the data from ferry to ferry is as important as the data itself.
- The vehicle type data for some vehicles is too small a sample at many of the sites to support accurate conclusions.
- Operational data (open and close dates, etc.) from the seasonal roads is not comparable from road to road

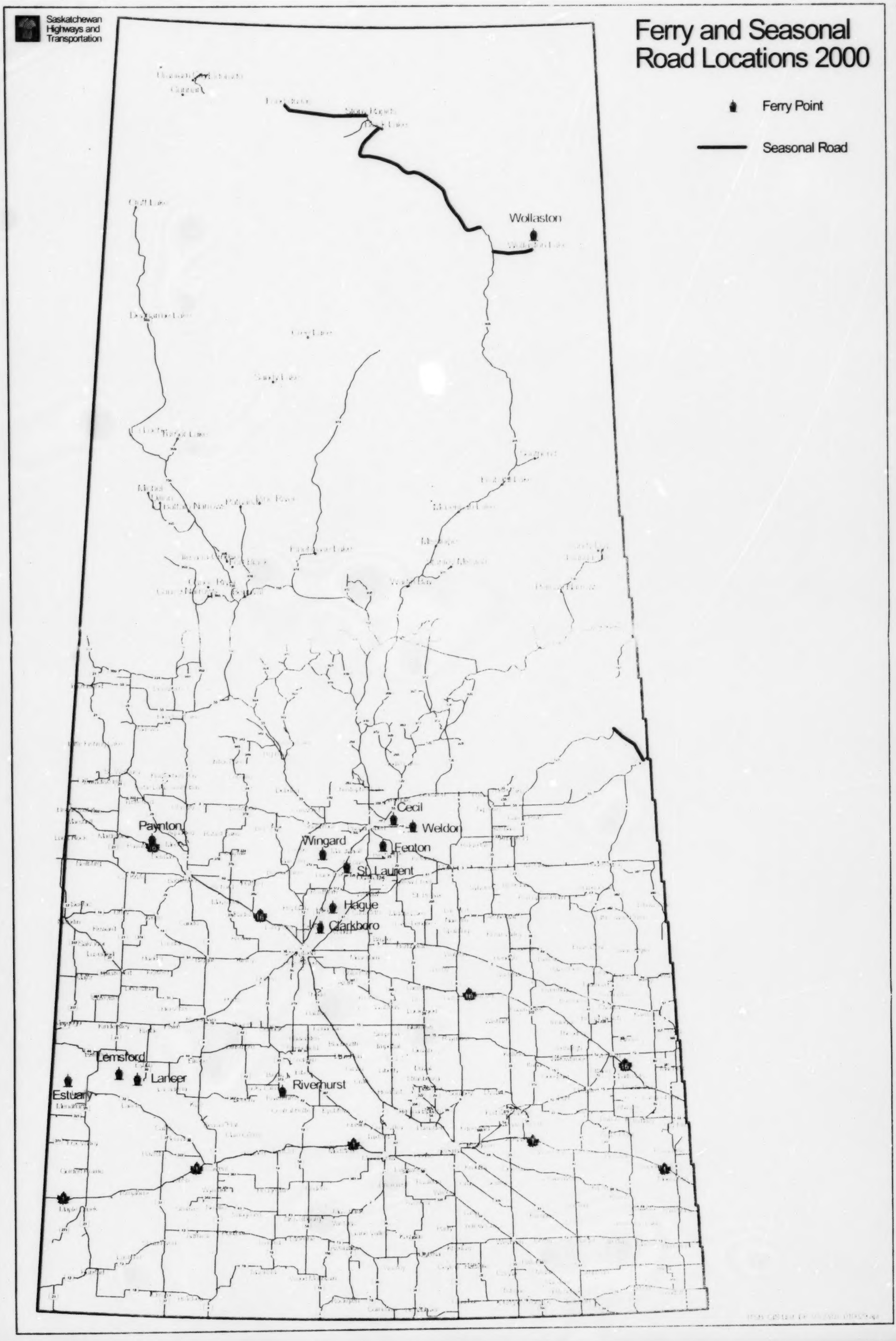
2.0 Background

The department operated 12 cable-stayed ferries and 1 free swimming ferry barge during 2000. Of those totals, 11 cable ferries operated on the North and South Saskatchewan rivers and one on Lake Diefenbaker. The only free swimming ferry in the province operates on Wollaston Lake to serve the village of Wollaston Lake. The ferry system has remained unchanged since responsibility for the system was moved to the Department except for closure of the Cumberland ferry.

Presently, ferry traffic data is collected by the ferry operators and forwarded to the Traffic Engineer for entry into the department databases and compilation of this annual report. The vehicle classification forms used by ferry operators are shown in Appendix A. This annual report documents the traffic using the ferry system and examines trends in the character and volume of the traffic.

The department also operates a system of four seasonal roads to provide highway linkages to isolated communities and seasonal industrial activities during the winter months. The operational periods of the seasonal roads vary greatly from year to year because of weather conditions.

The locations of the ferries and the seasonal roads are shown in the map on the following page.


Saskatchewan
Highways and
Transportation
Ferry and Seasonal
Road Locations 2000
Ferry Point
Seasonal Road
Wollaston
Cecil
Weldon
Paynton
Wingard
Fenton
St. Laurent
Hague
Clarkboro
Lemsford
Lanier
Estuary
Riverhurst

3.0 Ferry Operating Seasons

All of the ferries, except the Riverhurst ferry and the Wollaston Barge ferry, operate 12 hours per day between the hours of 7:00 am and 7:00 pm. The Riverhurst ferry operates 24 hours per day. Ferries don't run at times because of mechanical failure, bad weather or poor river conditions. The table below summarizes the 2000 operational season including downtime at all the ferries in the system. Details of the downtime, periods and their causes are shown in Appendix B.

Ferry	Season			Hours
	Opening	Closing	Length(days)	Out of Service
Clarkboro	April 11th	Nov 7th	211	0
Estuary	April 20th	Nov 6th	201	0
Hague	April 24th	Nov 7th	198	0
Lancer	April 18th	Nov 6th	203	36
Lemsford	April 20th	Nov 6th	201	0
Paynton	April 21st	Nov 6th	200	12
St. Laurent	April 17th	Nov 7th	205	12
Wingard	April 18th	Nov 7th	204	0
Cecil	April 20th	Nov 6th	201	0
Fenton	April 27th	Nov 6th	194	72
Weldon	April 20th	Nov 6th	201	42
Riverhurst	April 20th	Dec 10th	235	96

Table 1. 2000 Ferry Operating Season Statistics

4.0 Traffic Volumes

The table below summarizes the 2000 monthly traffic at all the cable ferry sites. Historic traffic volumes for these ferries are shown in Appendix C.

Ferry Vehicles	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Year
Clarkboro	4244	8224	7945	8228	8427	7181	8060	1471		53780
Estuary	411	1277	1430	2190	1941	1517	1495	176		10437
Hague	389	2109	1949	2033	1960	1715	1740	261		12156
Lancer	401	1111	1118	1422	1280	1077	873	139		7421
Lemsford	515	1696	1997	2604	1901	1371	1362	177		11623
Paynton	1216	5059	5400	5810	6028	4630	4965	641		33749
St. Laurent	1321	4303	4656	6847	4745	3837	3602	669		29980
Wingard	566	1761	2113	2331	2155	1855	1725	285		12791
Cecil	531	1882	1679	1676	1946	1990	1612	168		11484
Fenton	128	1131	1528	1364	1590	1192	1370	230		8533
Weldon	1065	4427	4306	4503	5009	4557	3726	177		27770
Riverhurst	1465	6527	7741	11132	8384	5880	4980	3080	818	50007
Monthly Totals	**12252**	**39507**	**41862**	**50140**	**45366**	**36802**	**35510**	**7474**	**818**	**269731**

Table 2. Monthly ferry traffic volumes for the 2000 Season

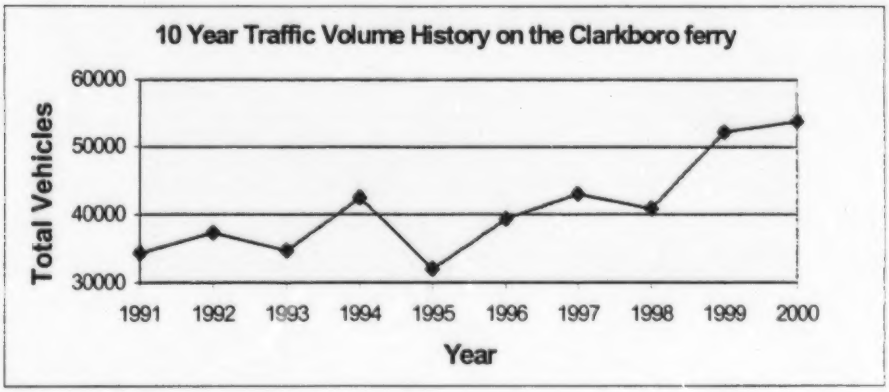
To facilitate systematic analysis the ferry traffic data are grouped by maintenance area. This system results in 5 groupings: Saskatoon, Prince Albert, North Battleford, Swift Current and Moose Jaw.

4.1 Saskatoon Area

The Saskatoon area contains four ferries: Clarkboro, Hague, St. Laurent and Wingard. The neighboring Clarkboro and Hague ferries have historically carried annual traffic in the 41 000 and 14 000 vehicles per year range, respectively. The St. Laurent and Wingard ferries have historically carried annual traffic in the 23 000 and 11 000 vehicles range respectively. In 2000, traffic at the Clarkboro ferry rose above the peak volumes seen in 1999 to over 53 000 vehicles. These sustained peak volumes are likely due to strong economic activity in and around the city of Saskatoon. The Hague ferry continued the gradual decline that began in 1997. In 2000 the St. Laurent ferry maintained the high volume of vehicles first seen in 1999 carrying approximately 30 000 vehicles. The Wingard ferry has carried vehicle volumes well above historical values since 1998.

Overall, traffic volumes on the Saskatoon area ferries have increased or remained steady over the past few years. The one exception was the Hague ferry. Since 1997 ferry traffic volumes in the Saskatoon area have increased more than 30%.

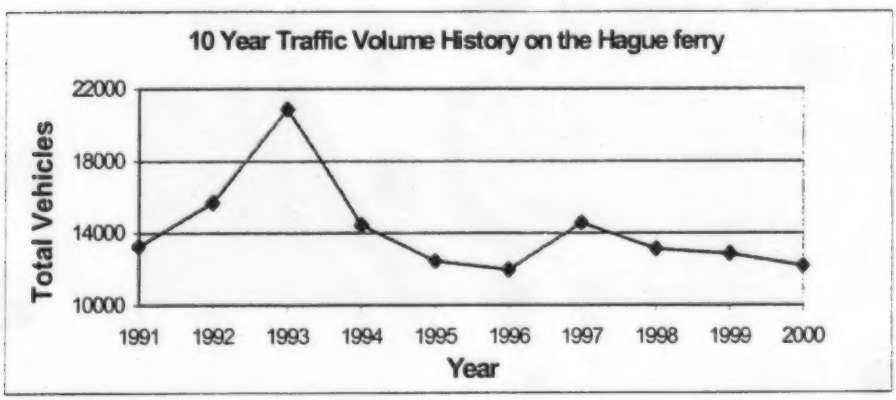
Chart 4.1A 10 year history of traffic on the Clarkboro ferry



1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
34291	37284	34674	42448	31975	39338	42991	40839	52185	53780

Traffic on the Clarkboro ferry continued the trend seen in 1999 likely due to strong economic activity in Saskatoon and farmers commuting to off-farm jobs.

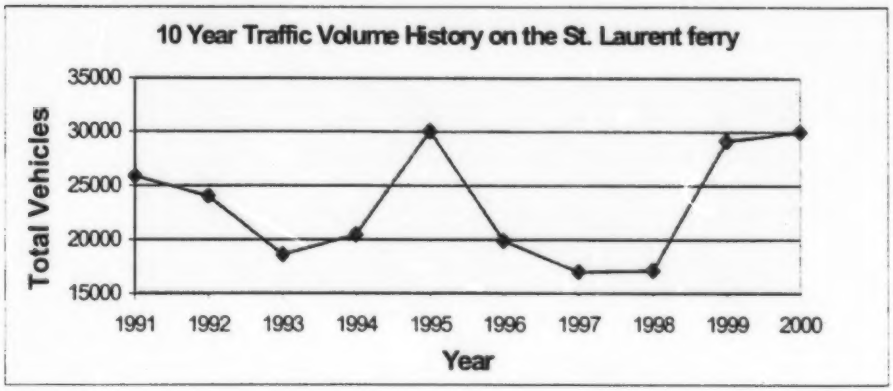
Chart 4.1B 10 year history of traffic on the Hague ferry



1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
13258	15700	20883	14442	12425	11961	14577	13122	12845	12156

Traffic on the Hague Ferry continued the gradually decline which began in 1997.

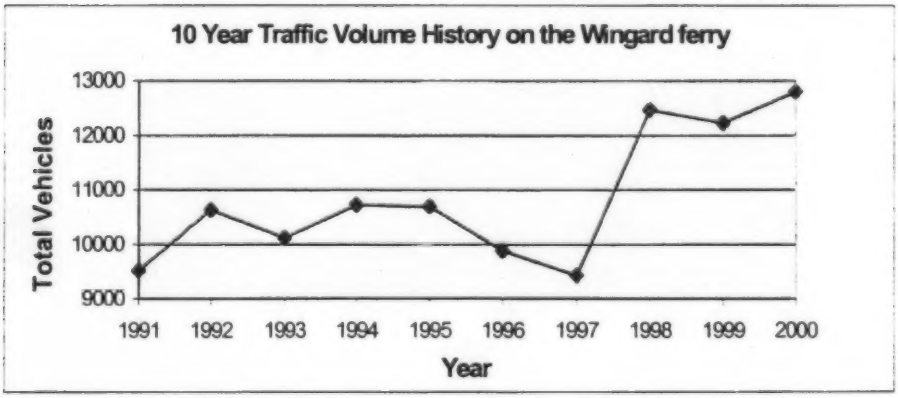
Chart 4.1C 10 year history of traffic on the St. Laurent ferry



1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
25842	24017	18556	20421	30030	19875	16987	17133	29143	29980

2000 Traffic on the St. Laurent ferry continued the high level from 1999.

Chart 4.1D 10 year history of traffic on the Wingard ferry



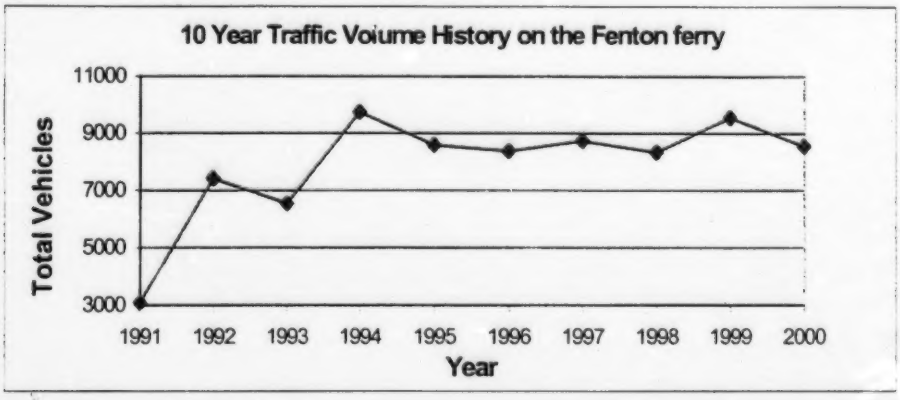
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
9511	10628	10115	10719	10687	9878	9420	12467	12227	12791

2000 Traffic on the Wingard ferry was a continuation of the sharply higher levels that began in 1998.

4.2 *Prince Albert Area*

The Prince Albert area includes the following three ferries: Fenton, Weldon and Cecil. Overall in 2000, traffic on the Prince Albert area ferries continued trends seen over the last few years. Traffic volumes on the Prince Albert area ferries are down 4% from 1999.

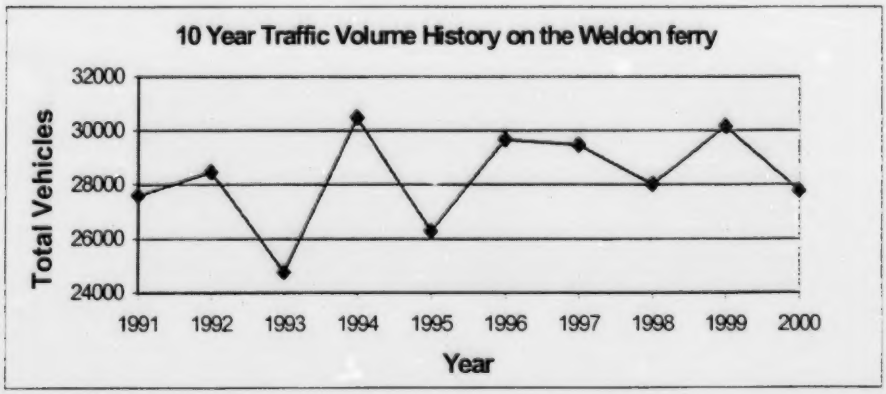
Chart 4.2A 10 year history of traffic on the Fenton ferry



1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
3079	7394	6517	9730	8582	8366	8716	8324	9547	8533

2000 Traffic on the Fenton ferry was a continuation of the pattern of last 6 years.

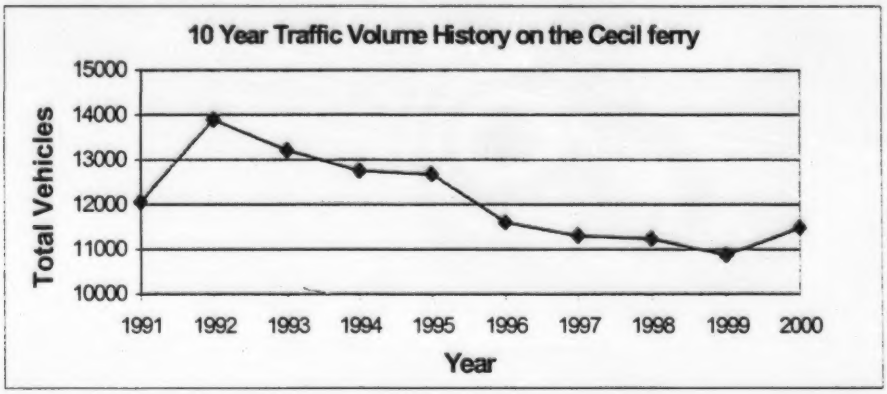
Chart 4.2B 10 year history of traffic on the Weldon ferry



1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
27586	28460	24754	30465	26268	29657	29455	28003	30134	27770

2000 Traffic on the Weldon Ferry was at historical average levels of approximately 28 000 vehicles.

Chart 4.2C 10 year history of traffic on the Cecil ferry



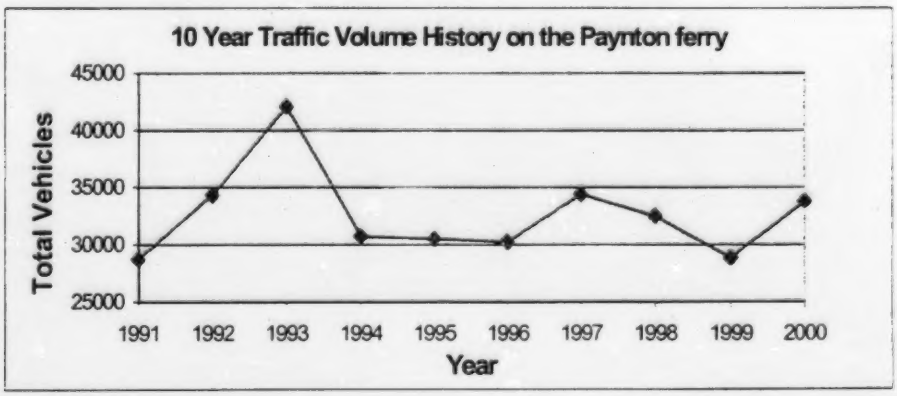
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
12054	13887	13210	12752	12678	11603	11303	11234	10873	11484

2000 Traffic on the Cecil ferry was at the traffic volume levels seen for the past 4 years.

4.3 North Battleford Area

The North Battleford area has only the Paynton ferry. Paynton has carried an average of 32 500 over the past ten years (see chart below). Traffic volumes at Paynton have been reasonably steady over the last 10 years. The only major variation was the 42 058 vehicle peak recorded in 1993. The 1993 peak was 30% above the ten year average of 32 600 vehicle per year. Since 1994 traffic volumes at Paynton have been stable at between 29 000 and 34 000 vehicles per year.

Chart 4.3A 10 year history of traffic on the Paynton ferry



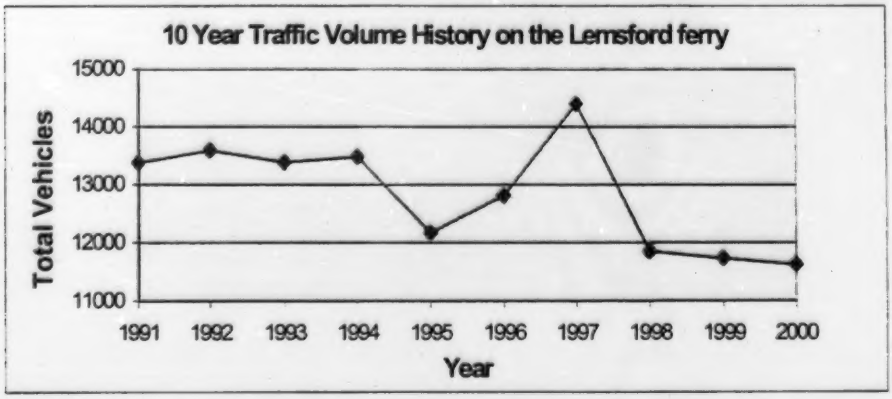
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
28662	34293	42058	30686	30453	30172	34365	32453	28808	33749

2000 Traffic volumes at Paynton increased from the previous two years but was only 3.5 % above the ten year average of 32 600 vehicles.

4.4 Swift Current Area

The Swift Current area has three ferries: Lemsford, Lancer and Estuary. Overall traffic volumes carried by the Swift Current area ferries have been relatively steady for the past few years. In 2000, the Swift Current ferries volumes were almost identical to the previous year. It should be noted however that traffic volumes carried by the Lemsford ferry were the lowest in ten years and by the Estuary ferry were the highest in ten years.

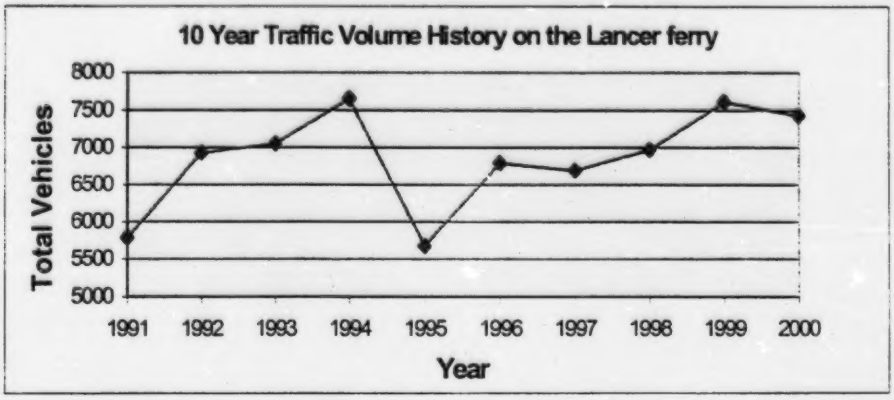
Chart 4.4A 10 year history of traffic on the Lemsford ferry



1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
13368	13588	13381	13471	12170	12805	14393	11849	11730	11623

2000 Traffic on the Lemsford ferry continued to decline from the ten year peak in 1997 to lowest level seen in the last 10 years.

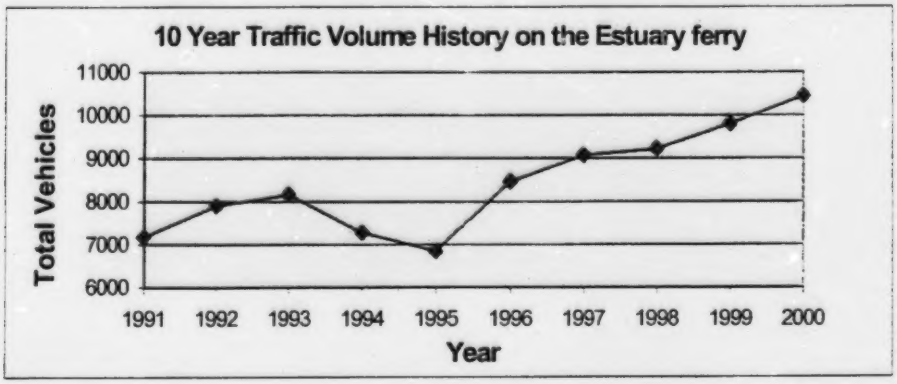
Chart 4.4B 10 year history of traffic on the Lancer ferry



1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
5779	6928	7047	7649	5673	6789	6685	6967	7604	7421

2000 Traffic volumes on the Lancer ferry remained well above the ten year average.

Chart 4.4C 10 year history of traffic on the Estuary ferry



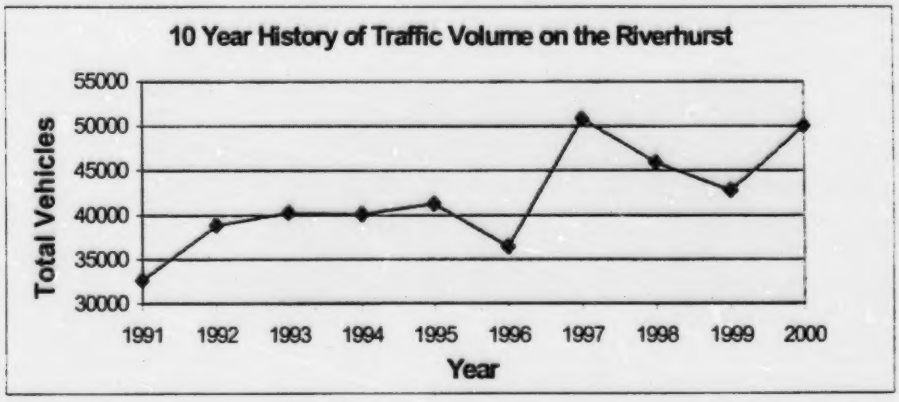
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
7172	7900	8153	7278	6844	8463	9058	9217	9793	10437

2000 Traffic volumes on the Estuary ferry continued the gentle increase began in 1995.

4.5 Moose Jaw Area

The Moose Jaw area contains only the Riverhurst ferry, which is the largest and most sophisticated cable ferry in the province. Unlike any other cable ferry in the system, Riverhurst is located on a provincial highway (No. 42) and carries vehicles two kilometres across Lake Diefenbaker. The Riverhurst ferry has carried relatively stable traffic volumes in the 42 000 vehicles per year range over the last ten years. In 2000, traffic surged to 50 000 vehicles, an increase of 17% from the previous year and close to the 10 year peak levels of 1997. The reasons for the return to 1997 traffic levels are unclear, but increased recreational traffic by fishermen exploiting an accidental release of rainbow trout could be a major contributor.

Chart 4.5A 10 year traffic Volume History on the Riverhurst ferry



1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
32613	38835	40242	40076	41291	36449	50766	45915	42775	50007

2000 Traffic volumes on the Riverhurst ferry returned to the 1997 peak level.

5.0 Vehicle Classifications

Ferry operators record traffic using the ferries by vehicle type. An analysis of the type of traffic using each ferry is done each year to determine whether the character of the traffic is changing. The vehicle classification analysis is divided into the same geographical areas used for traffic volumes. The breakdown of vehicle types for each location is summarized in the charts below.

Chart 5.0A 2000 Vehicle Types by Location

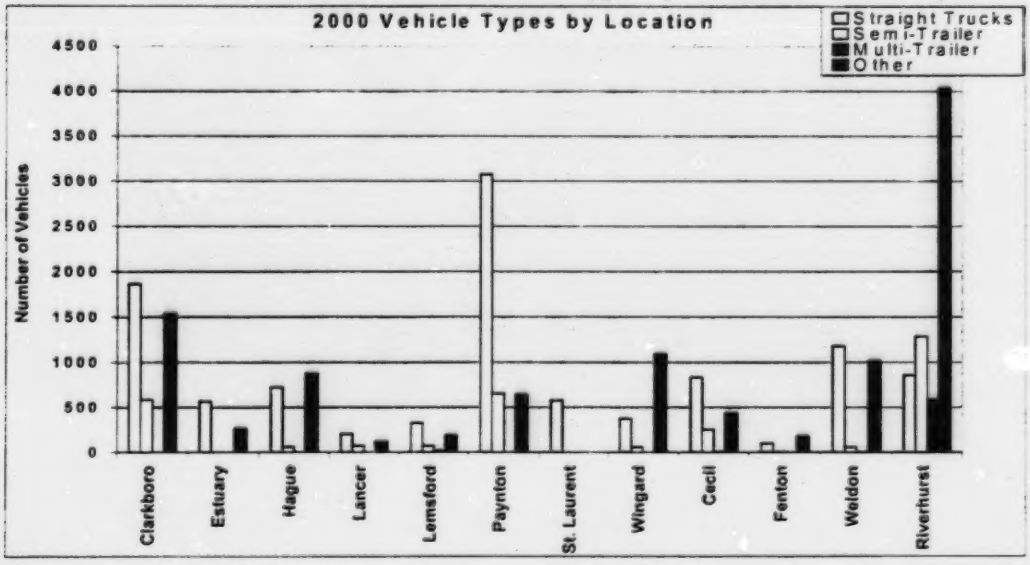
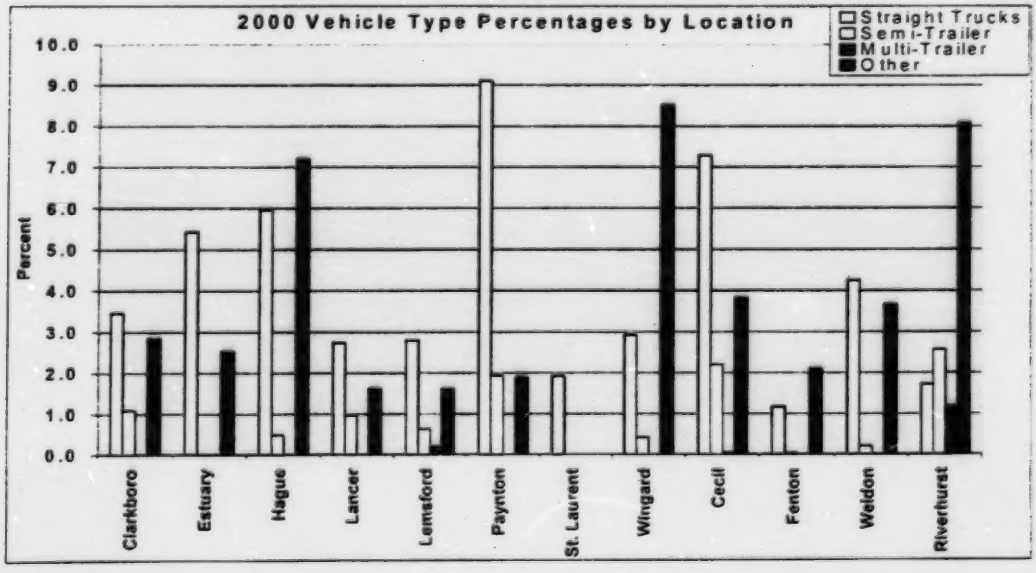


Chart 5.0B 2000 Vehicle Type Percentages by Location



5.1 Saskatoon Area

The Hague ferry and the Wingard ferry carry a high percentage of "other" vehicles, indicating that these ferries are on local routes used by farmers. The vehicle category "other" normally refers to farm or construction equipment except near recreation areas, where they are often passenger vehicle - recreational equipment combinations like boat trailers or camp trailers. In the years prior to 1999, the percentage of other vehicles using the Hague ferry was higher. The vehicle type shift at Hague may be associated with the depressed state of the farm economy and an increase in the number of farmers commuting to jobs in Saskatoon.

The Clarkboro ferry continues to carry commuter traffic to Saskatoon. The St. Laurent ferry was consistent with previous years, carrying predominantly passenger vehicles.

Chart 5.1A Vehicle Types using the Clarkboro ferry

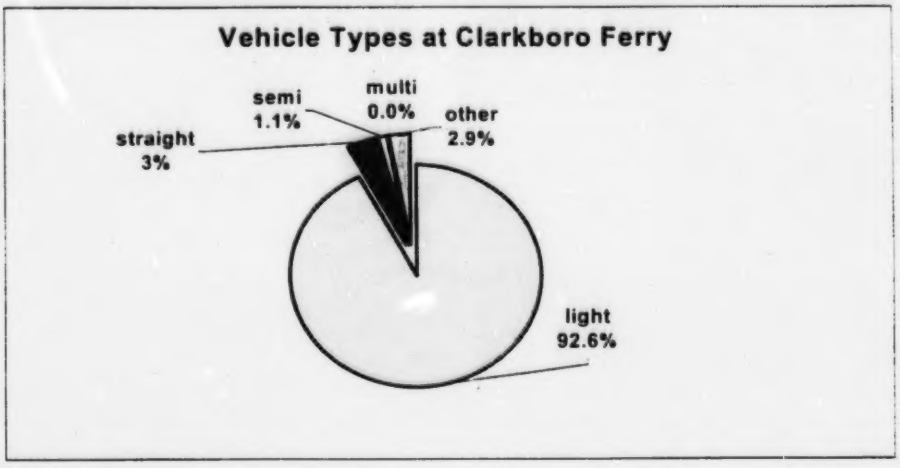


Chart 5.1B Vehicle Types using the Hague ferry

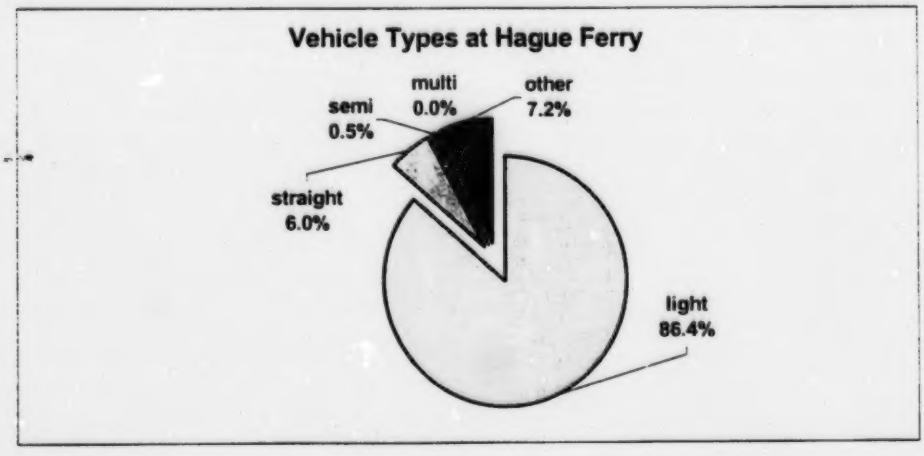


Chart 5.1C Vehicle Types using the St. Laurent ferry

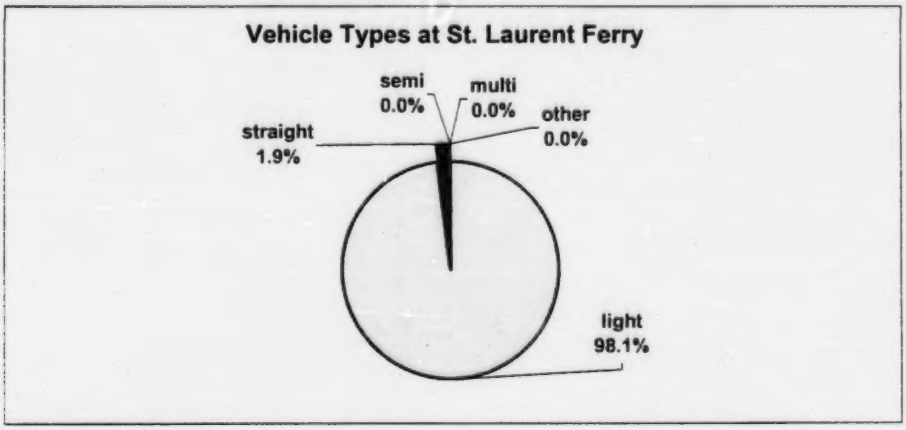
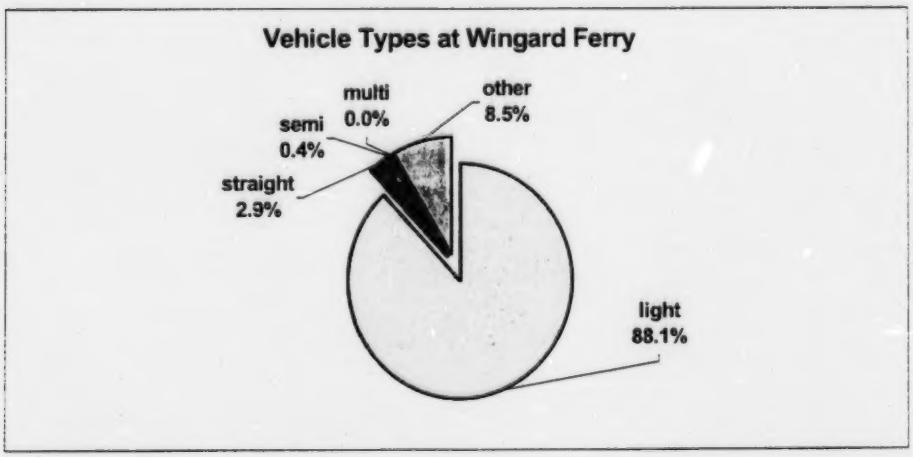


Chart 5.1D Vehicle Types using the Wingard ferry



5.2 *Prince Albert Area*

The Prince Albert area contains the Fenton, Weldon and Cecil. The vehicle mix at each ferry is displayed in the graphs below.

Cecil and Weldon carry a greater proportion of heavy trucks than the Fenton ferry. The high percentage of non-articulated trucks at Cecil indicate that it is on a short distance haul route for agricultural products. Weldon carries vehicle types that are indicative of a local route used by farmers on a day to day basis as they go about working their land. Weldon has moderate numbers of non-articulated trucks and a significant amount of vehicles normally interpreted as farm equipment. Traffic on the Fenton ferry was almost exclusively passenger vehicles.

Chart 5.2A Vehicle Types using the Fenton ferry

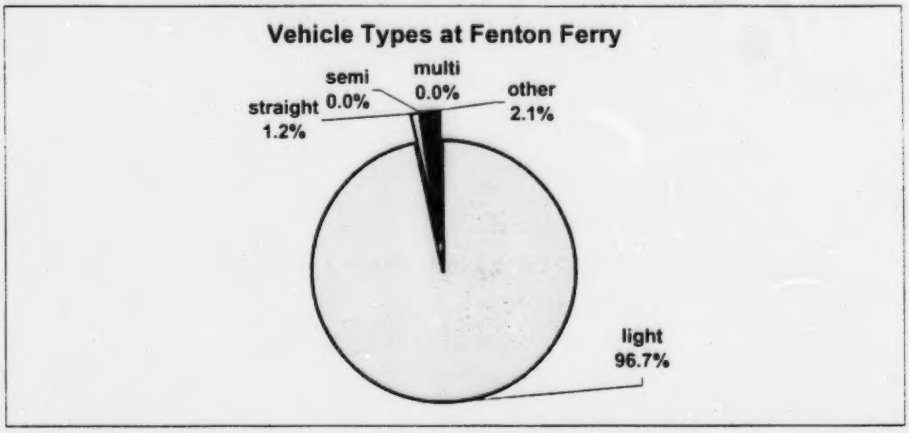


Chart 5.2B Vehicle Types using the Weldon ferry

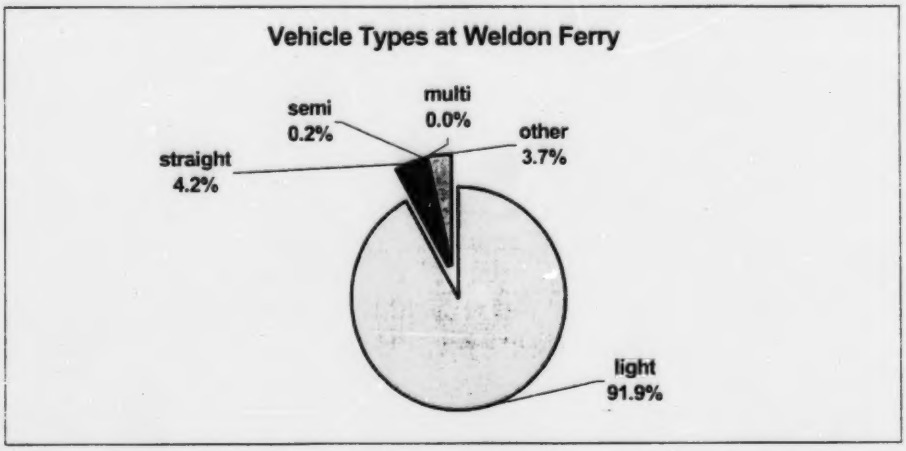
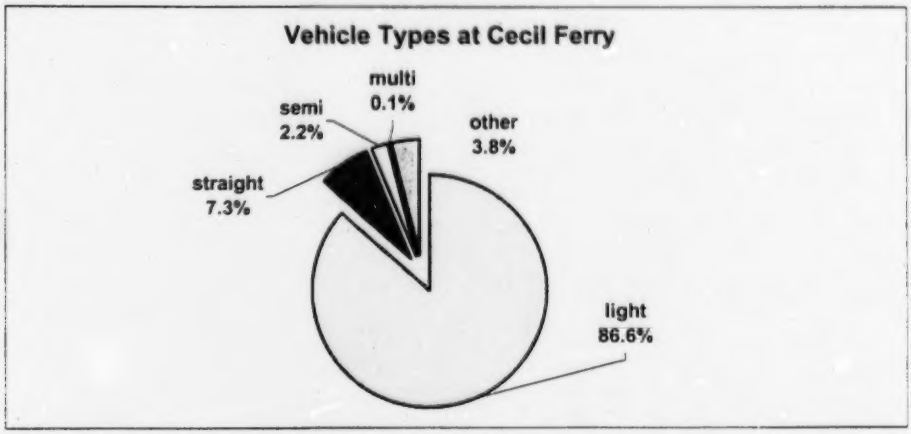


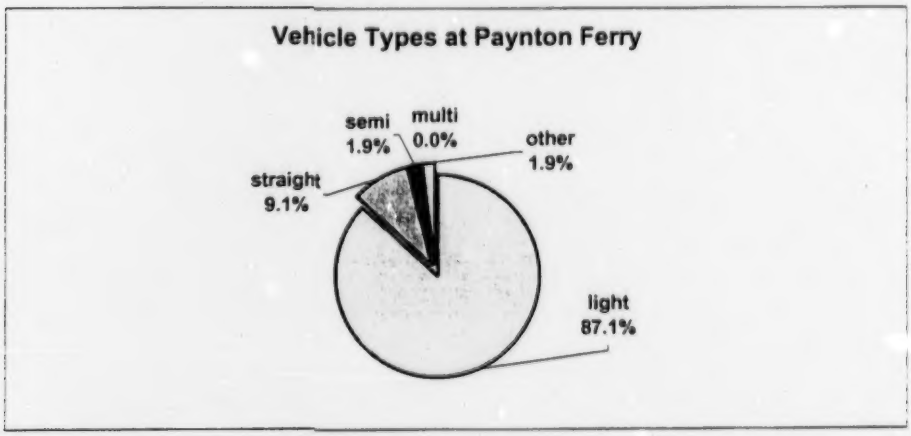
Chart 5.2C Vehicle Types using the Cecil ferry



5.3 North Battleford Area

The North Battleford area contains only the Paynton ferry. This ferry serves a predominately rural population as shown by the high percentage non-articulated trucks. Paynton also serves as a link to highway No.16 for freight haul as shown by the relatively high percentage of single trailer semis that used the ferry in 2000.

Chart 5.3A Vehicle Types using the Paynton ferry



5.4 Swift Current Area

The Swift Current area ferries all serve predominately rural populations. The Lemsford and Lancer ferries carry an almost identical vehicle mix of small percentages of non-articulated (farm) trucks and equipment and small numbers of commercial trucks (single trailer semis). The Estuary ferry is unique in this area in that it carries a fairly high percentage of farm trucks and farm equipment. Estuary apparently connects cattle operations south of the river to large hay flats located along the north side of the river.

Chart 5.4A Vehicle Types using the Lemsford ferry

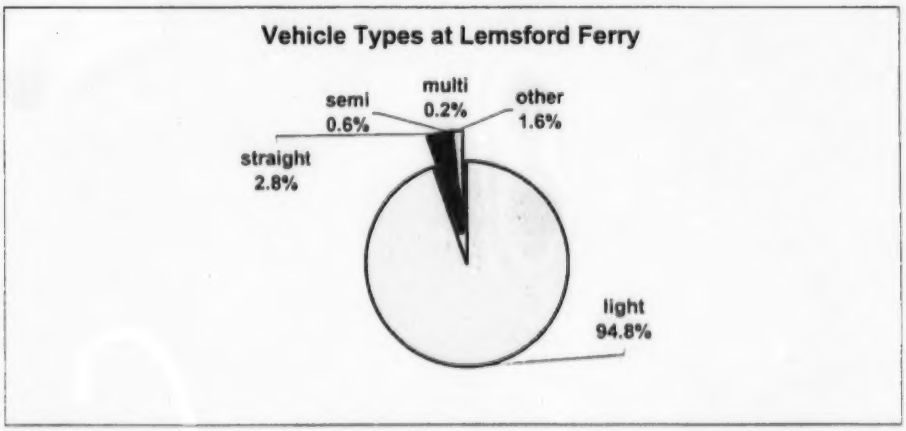


Chart 5.4B Vehicle Types using the Lancer ferry

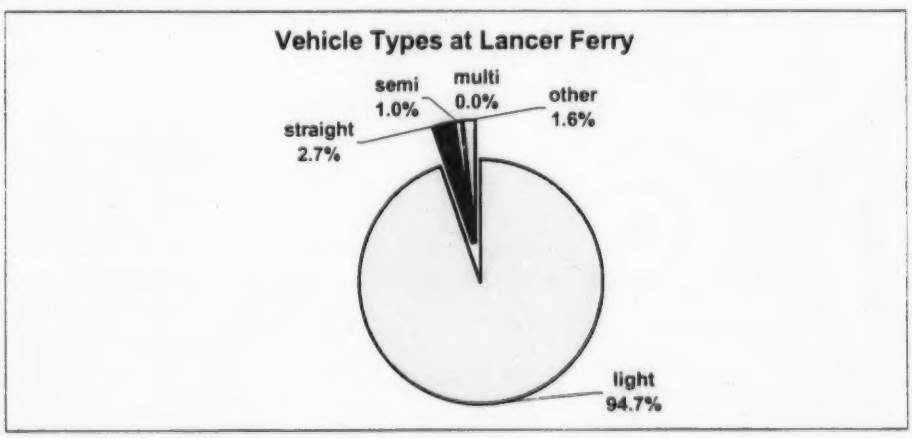
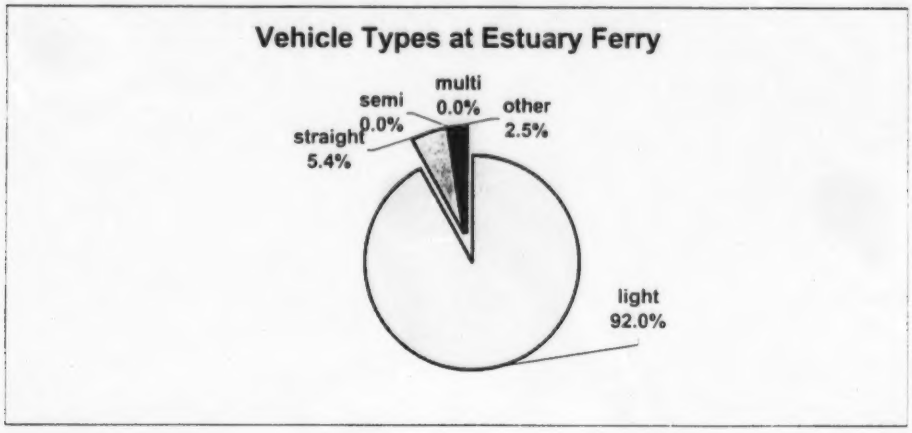


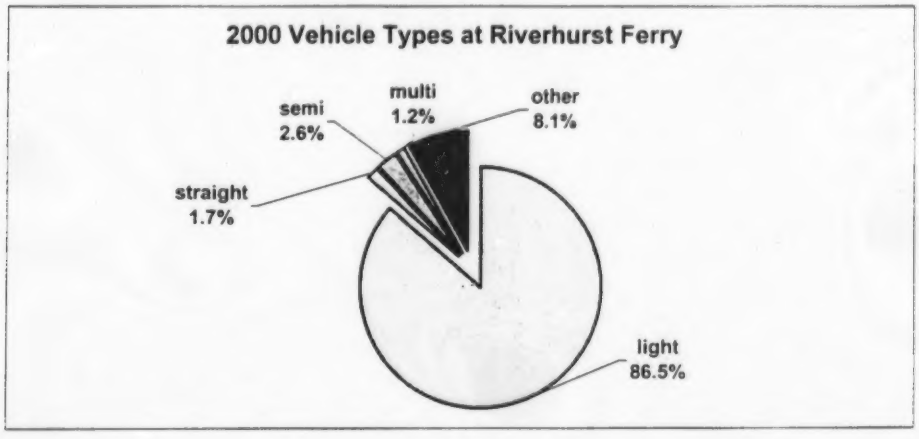
Chart 5.4C Vehicle Types using the Estuary ferry



5.5 Moose Jaw Area

The Riverhurst ferry is the largest and most sophisticated cable ferry in the system. It is also the only cable ferry located on the provincial highway system. The vehicle mix clearly shows that Riverhurst is a link in the highway system and is a vital link in the agricultural area around the crossing. The percentage of non-articulated (straight) vehicles continued to drop from the previous few years, but farm equipment traffic increased from the previous year.

Chart 5.5A Vehicle Types using the Riverhurst ferry



6.0 Wollaston Barge Ferry

The Wollaston Barge Ferry connects the community of Wollaston Lake to Highway No. 905. This ferry is unique in that it is the only free-swimming ferry operating in the province and it is operated on behalf of the department by the Hatchet Lake Indian Band. The operational season at Wollaston is shorter than other ferries in the province because of the northern location. This ferry carries quite low traffic volumes compared to the southern ferries. The route across the lake is long and only one round trip is possible each operational day. A total of 625 vehicles used this ferry in 2000, an increase of about 10% over 1999. The ferry opened on June 15, 2000 and closed on Oct 12, 2000. The monthly traffic record follows:

MONTH	# OF TRIPS	CODE 1	CODE 2	CODE 3	Total Units
June	17	38	10	3	51
July	60	116	30	20	166
August	69	103	36	58	197
September	55	62	61	22	145
October	33	39	17	10	66
Total	**234**	**358**	**154**	**113**	**625**

Table 3. 2000 Monthly Traffic on the Wollaston Barge Ferry

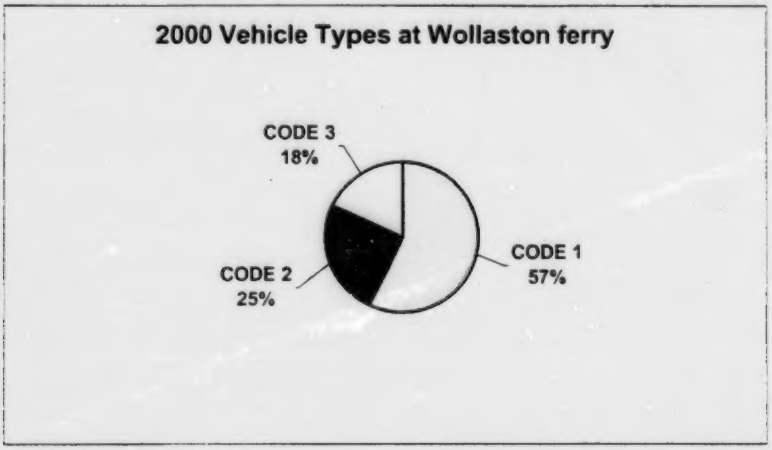
The vehicle classification system used at Wollaston is different than that used by the rest of the ferry system. The three codes that are used at the Wollaston Barge Ferry are described below:

Code 1 - Single Light Vehicle - any vehicle, car, truck (less then a 1 ton), motorcycle, etc.

Code 2 - Other - includes single vehicles with trailer, trucks over one ton, etc.

Code 3 - Full - Any vehicle, trailer, construction equipment or combination there-of.

Chart 6.1 A Vehicle Types using the Wollaston Barge Ferry



Not surprisingly the Wollaston ferry carried the highest percentage of commercial vehicles in the province at 43%, an increase of 4% over 1999. Other than by air this ferry is the only summer road access to Wollaston Lake. Passenger trips are not very numerous because the community is small and the trip across the lake and down the road to the nearest community is long. The number of Code 1 and Code 2 vehicles remained relatively constant from 1999 but the number of Code 3 vehicles almost doubled. The increase in Code 3 vehicles was responsible for most of the 10% increase total traffic.

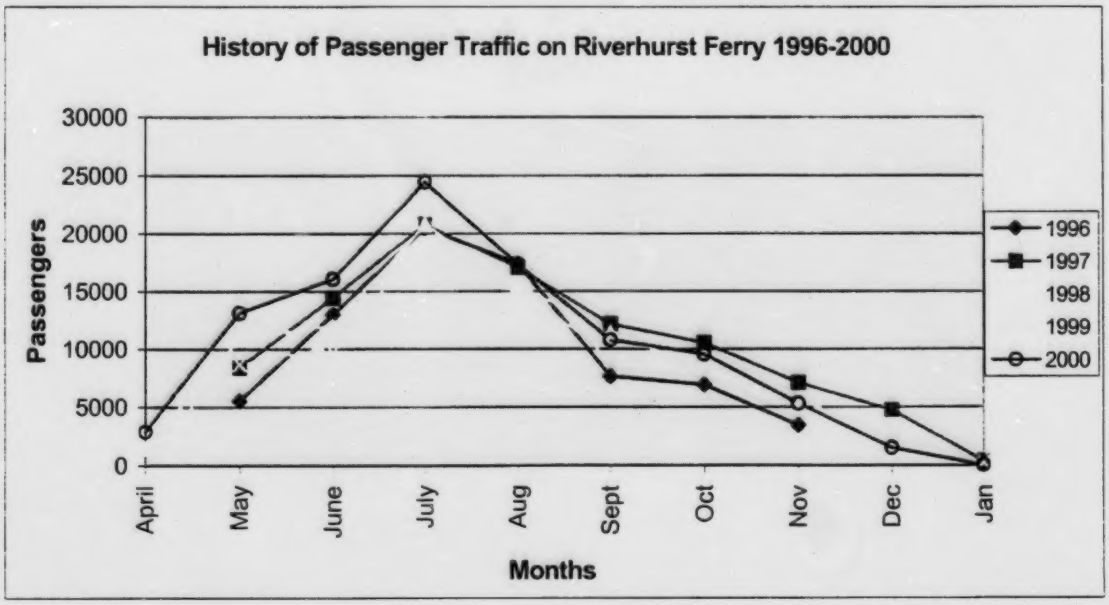
7.0 Passengers

The number of passengers taking the Riverhurst ferry in 2000 was the highest in the five years since we began recording passenger volumes (see Table 4 below).

Riverhurst Ferry											
Passengers	**April**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Totals**
1996		5539	12953	20471	17414	7631	6916	3431	closed	closed	**74355**
1997		8437	14435	20828	17075	12162	10524	7093	4756	361	**95671**
1998	1485	10882	12048	20767	15557	11427	8208	4895	2687	closed	**87956**
1999	1456	8660	10259	19183	15738	9039	8620	5576	2748	247	**81526**
2000	2894	13111	16032	24433	17356	10763	9545	5334	1511	closed	**100979**

Table 4. Summary of monthly Passenger Traffic on the Riverhurst Ferry

Chart 7.1 History of Passenger Traffic at the Riverhurst Ferry 1996-2000



For the first time, the number of passengers for most of the ferries was recorded. Table 5 below summarizes the 2000 monthly passenger volumes at these ferry sites.

Ferry	April	May	June	July	Aug	Sept	Oct	Nov	Total
Clarkboro			14304	14986	14166	11087	12705	2044	**69292**
Estuary	637	2096	2434	4086	4095	2750	2767	287	**19152**
Hague				3807	3511	2903	3066	418	**13705**
Lancer		1914	2136	2959	2550	2208	1675	226	**13668**
Lemsford	879	2850	3626	5417	3687	2379	2427	283	**21548**
Paynton	2700	8623	9375	10640	11664	7793	8403	921	**60119**
St. Laurent									
Wingard		4140		6475	5193	4005	3981	623	**24417**
Cecil									
Fenton									
Weldon									
Total	**4216**	**19623**	**31875**	**48370**	**44866**	**33125**	**26621**	**3881**	**221901**

Table 5. 2000 Monthly Passenger Volumes at all Ferry Sites (except Riverhurst)

8.0 Seasonal Roads

For the first time, this report includes information on the 4 seasonal roads operated by the department: the Cumberland House road, the Riverhurst road, the Wollaston Barge road and the Athabasca Basin road.

8.1 Cumberland House Seasonal Road

The Cumberland House seasonal road has been operating since the 1992-1993 winter season. The Cumberland House road 1999-2000 operations began on Dec. 21, 1999 with the filling of ruts. The road officially opened to local traffic on Jan. 5, 2000. The road is 52 km long and intersects with the north end of Highway No. 9 just west of the Manitoba boundary. The Cumberland House seasonal road is operated under an agreement with the forestry company Weyerheuser. The first 17 km east of Cumberland House is maintained by Weyerhaeuser and the remaining 35 km by the department.

The seasonal road was open for traffic for 78 days in 2000. Road conditions deteriorated several times in February and March due to mild weather. The road was closed for the season on Mar. 22, 2000. Total expenditures for the Cumberland road in 2000 was $4,500 for a unit cost of $129 per km or $58 per day of operation. The available history of the Cumberland House seasonal road is shown in Table 6 below.

Year	Opening	Closing	Length (days)	Cost
1993	Jan 13th	Mar 5th	52	$27,685
1994	Jan 24th	Mar 29th	65	$18,000
1995	Jan 10th	Mar 28th	78	$2,707
1996	Dec 1st	Mar 12th	103	$50,145
1997	Jan 5th	Mar 26th	81	$19,702
1998	Jan 19	Mar 24th	65	$3,610
1999	Dec 8th	Mar 3rd	86	$4,524
2000	Jan 5th	Mar 22nd	78	$4,500

Table 6. History of Cumberland Seasonal Road

8.2 *Riverhurst Seasonal Road*

The Riverhurst seasonal road has operated intermittently for many years. In years when an official road is opened, the department establishes and maintains it. The department may decide not to open the seasonal road if the ice does not become sufficiently thick early enough in the season. Most often, the locals will create their own winter trail in the years that the Department opts not to open a seasonal road. In these cases, the locals are responsible for the maintenance and costs of the road and therefore there is no official record of these years. The history of the official Riverhurst seasonal road is shown in Table 7 below.

Year	Opening	Closing	Length (days)
1991	Jan 9th	Mar 14th	65
1992	Feb 12th	Feb 27th	16
1993	Jan 25th	Mar 3rd	38
1994	Mar 9th	Mar 14th	5
1995	Jan 23rd	Mar 11th	47
1996	Jan 11th	Apr 7th	87
1997	Jan 20th	Mar 20th	60
1998	**not opened**		
1999	Feb 1st	Mar 19th	47
2000	**not opened**		

Table 7. History of Riverhurst Seasonal Road

8.3 *Wollaston Barge Seasonal Road*

The Wollaston Barge seasonal road has been operating for many years. The seasonal road is established and maintained each year by the Hatchet Lake Band on behalf of the Department of Highways. The 1999-2000 season officially began for legal loads during the third week of January and ended on Mar. 31, 2000. Local traffic often uses the road up to another month after it is officially closed. Part of the Wollaston Barge road had to be relocated during the season due to the development of a pressure ridge. This construction caused the road to surpass its allotted budget of $123,000 by $3,666. The average operation and maintenance cost dating back to 1986 has been between $80 000 and $100 000. The history of the official Wollaston Barge seasonal road is shown in Table 8 below.

Year	Opening	Closing
1986	Jan 10th	Mar 31st
1987	Feb 4th	Mar 31st
1997	Jan 26th	Mar 31st
1998	Jan 11th	Mar 31st
1999	Feb 15th	Mar 31st
2000	3rd week in Jan	Mar 31st

Table 8. History of Wollaston Barge Seasonal Road

8.4 *Athabasca Basin Seasonal Road*

The Athabasca Basin seasonal road is made up of a collection of shorter sections as shown in Table 9 below and is maintained by the Hatchet Lake Indian Band. The sections are currently bladed trails and will require yearly repair work until the roadway is reconstructed to an all weather highway standard. Winter conditions were generally favourable in 2000 and the packing and blading activities stayed within the maintenance forecasts.

Road	Opening	Closing	Length (km)	Cost
Points North to Black Lake	Nov 1st /99	Mar 31st	180	$634,980
Stony Rapids to Shasko Bay	Feb	Mar 31st	51	$142,010
Shasko Bay to Fond du Lac		Mar 31st	32	$96,500
Fond du Lac to Uranium City	Mar	Mar 31st	100	$15,000

Table 9. 2000 Athabasca Basin Seasonal Road Summary

The Points North to Black Lake section is the most recent addition to the Athabasca Basin winter road. Although the road was used by the locals beginning in August, it was not officially opened until Nov.1, 1999. The ice sections from Stony Rapids to Shasko Bay and Fond du Lac to Uranium City were constructed in February and March, respectively. Success of the ice road from Fond du Lac to Uranium City was limited by openings in the ice at pressure ridges. Lack of suitable bridging material meant that pressure ridges frequently took the road out of service. The estimated use and cost of the seasonal road are shown in Table 10 below.

Year	Freight (loads)		Total Traffic	Total Cost
	Confirmed	Estimated		
2000	160	60	2000	$907,313.51

Table 10. 2000 Athabasca Basin Seasonal Road Highlights

9.0 Conclusions

- In 2000 the ferry system was operating near the 10 year average traffic levels
- Overall the ferry system is well utilized. Year to year traffic fluctuations at individual ferries seem to be caused by differences in the length of the operational system, weather and local economic activity.
- Several ferries carried traffic at or very near the 10 year peak volumes in 2000.
- Addition of passenger volume data to the annual report was successful for the most part and adds valuable information.
- The seasonal roads seem to be well used and provide a useful service to isolated communities.

9.1 Operating Season/Downtime

- As in previous years Riverhurst had the longest operating season, extending into December 2000.
- Mechanical problems at all the ferries were fixed within a reasonable amount of time.
- Operational season of the seasonal roads are driven primarily by the timing and severity of winter weather.

9.2 Traffic Volumes

- The Clarkboro ferry maintained high volumes seen in 1999, the volume of vehicles have increased 32% since 1998.
- Estuary experienced it's fifth consecutive, albeit modest, traffic volume increase in 2000. The ferry carried a ten-year high traffic volume in 2000.
- Paynton carried volumes above the historical average in 2000, increasing volumes by 17% from the ten-year low volume in 1999.
- The Lemsford ferry carried a ten-year low volume in 2000.
- Traffic volumes at Riverhurst increased 17% from the previous year and were near the 1997 ten-year peak.

9.3 Vehicle Classification

- The percentage of non-articulated trucks carried by the Paynton ferry increased from 6.7% in 1999 to 9.1% in 2000, suggesting increased hauling of farm activity products in the area. This phenomenon is likely related to grain delivery point changes in the area.

10.0 Recommendation

The department require the operators of the Wollaston ferry to collect vehicle type information using the classification system used by the rest of the ferries when the operating agreement is renegotiated.

Saskatchewan Highways and Transportation

Ferry Traffic Data Summary

Ferry crossing_____ Month of _____

Day	LGT	Straight Trucks	Semi Trailer	Multi Trailer	No. Pass	Other	Comments
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
Totals							

Statement Certified Correct

_____

Ferry operator

KEY

LGT	-Cars & Pickups
Straight Trucks	-Non-articulated
Semi Trailer	-Single Trailer
Multi-Trailer	-2 or more Trailers

Notes:

1) "Other" includes farm or construction equipment etc.
2) Give details of "other" in "Comments" ie: dangerous goods, equipment type, product hauled etc.

Saskatchewan Highways and Transportation

Ferry Traffic Data Summary

crossing_____ File No._____ Month of_____, 200__

	LGT	Straight Trucks	Semi Trailer	Multi Trailer	No. Pass	Other

ıent Certified Correct

_____

ɒperator

LGT -Cars & Pickups
Straight Trucks -Non-articulated
Semi Trailer -Single Trailer
Multi-Trailer -2 or more Trailers

Notes:

1) "Other" includes farm or construction equipment e
2) Give details in "Comments" ie: dangerous goods equipment type, product hauled etc.

Riverhurst Ferry Traffic Data

Sheet No. _____

Date_____ Shift_____ Operators 1. _____ 2. _____

Departure Time	LGT	Straight Trucks	Semi Trailer	Multi Trailer	Other	Pass-engers	Comments	Engine R.P.M.	Weather Wind(Kmh)	Sky	Surface	Temp
Totals												

Statement Certified Correct

_____

Ferry operator

Regular crew Name (please print)	Casual crew called Name	Accept	Refuse

		Main Engine	Genset 1	Genset 2
Hourmeter	Start			
	Finish			
Engine oil pressure				
Engine Coolant temp.				
Torque Converter Temp.				
Torque Converter Pres.				
Engine oil added				
Engine Coolant added				
Torque Conv. oil added				
Transmission oil added				
Final drive oil added				
Hydraulic oil	East Ramp_____		West Ramp_____	

Remarks (Weather, Servicing, etc)

2000 Downtime on Provincial Ferries

Ferry	Date	Hours	Total Downtime	Reason
Lancer	Sept 17th - 19th	36	36	Low water
Payton	July 15th	12	12	High water
St. Laurent	July 30th	12	12	Repairs
Fenton	May 6th - 10th Sept 10th	60 12	72	Low water Low water
Weldon	Nov 2nd - 5th	42	42	Repairs
Riverhurst	May 1st May 29th June 6th July 20th July 30th Sept 27th Oct 16th - 18th Nov 3rd	7 8 13 2 2 2 51 1	86	Broken cable unknown Broken cable Repairs Repairs Repairs Repairs Tighten cables

APPENDIX C

Historic Traffic Volumes

FERRY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	AVERAGE
Clarkboro	34291	37284	34674	42448	31975	39338	42991	40839	52185	53780	**40981**
Estuary	7172	7900	8153	7278	6844	8463	9058	9217	9793	10437	**8432**
Hague	13258	15700	20883	14442	12425	11961	14577	13122	12845	12156	**14137**
Lancer	5779	6928	7047	7649	5673	6789	6685	6967	7604	7421	**6854**
Lemsford	13368	13588	13381	13471	12170	12805	14393	11849	11730	11623	**12838**
Paynton	28662	34293	42058	30686	30453	30172	34365	32453	28808	33749	**32570**
St.Laurent	25842	24017	18556	20421	30030	19875	16987	17133	29143	29980	**23198**
Wingard	9511	10628	10115	10719	10687	9878	9420	12467	12227	12791	**10844**
Cecil	12054	13887	13210	12752	12678	11603	11303	11234	11016	11484	**12122**
Fenton	3079	7394	6517	9730	8582	8366	8716	8324	9640	8533	**7888**
Weldon	27586	28460	24754	30465	26268	29657	29455	28003	30382	27770	**28280**
Cumberland	20891	23192	24000	23041	28198	19082	Closed	Closed	Closed	Closed	**23067**
Riverhurst	32613	38835	40242	40076	41291	36449	50766	45915	42775	50007	**41897**
TOTAL	**234106**	**262106**	**263590**	**263178**	**257274**	**244438**	**248716**	**237523**	**258148**	**269731**	**253881**